Breakout Session #1: Definition of Optical Methods for Turbidity and Data Reporting

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Scribe: Jim Eychaner, USGS

Sessions Focus: Definition , Measurement and Reporting of Turbidity Using Nephelometry

Session Goals/Outcomes:

Draft of a turbidity definition(s)
Technological limits of current technologies as a surrogate for SSC
Draft of data reporting requirements and comparability of data obtained using differing methods
Recommendations for development and use of continuous turbidity measurements as a surrogate for SSC and other constituents

Some Guiding Questions for the Breakout Session #1:

1. Why is the turbidity of water measured? Focus on as a surrogate for sediment and sediment-associated constituents
2. What are the environmental and regulatory implications of turbidity measurement?
3. What do meters measure?
4. How do meters measure turbidity?
5. How is turbidity defined and how should it be defined?
6. What are limitations or problems of current technology?
7. As a surrogate for SSC?
8. How should data from differing technologies be reported?
9. What are the reasonable goals for the technology?
10. Should these monitors be standardized or certified? If so, by whom?

Grand Expo "C", Wednesday, May 1, 8:00 a.m. to 12:00 p.m.

8:00	Welcome, Goals of Plenary Session	Ziegler
	Overview/summary of Breakout session	Ziegler
	Discussion/modification of session goals	Panel and attendees
	Presentation of draft turbidity definition	Ziegler
8:25	Q/A	Ziegler
8:30	Formazin and polymer standards	Papacosta, APS
8:50	Practical standard issues	Lizotte, YSI
9:10	Effects of color	Downing, D-A Assoc.
9:40	Oregon example of standards/SSC/and deployment	M. Uhrich, USGS
10:00	Deployment issues in Kansas	P. Rasmussen

10:20	Break	
10:40	Discussion of turbidity definition and agreement on working definition	Panel of Speakers and attendees
11:00	Selection of subgroups and leaders - Limitations of measurement technology (methods, optics, detectors, calibration standards, color, grain size) - Deployment of continuous monitors as suspended-sediment concentration surrogate - Data storage requirements Breakout of subgroups for discussion of areas in areas of room each subgroup assign a note taker and reporter using laptop	Panel and attendees
12:00	Adjourn, Lunch, Field Trip	
5:30	Subgroups convene on own for dinner and discussion	

Session #1, Grand Expo "C", Thursday, May 2, 8:00 a.m. to 12:00 p.m.

8:00	Reports from subgroups	Ziegler
8:10	Limitations of measurement technology	Respective leader
8:30	Discussion	Entire group
8:55	Deployment of continuous monitors	Respective leader
9:15	Discussion	Entire group
9:40	Break	
10:00	Data Storage Requirements	Respective leader
10:20	Discussion- entire group	
11:00	Agreement on Turbidity definition	Group Discussion
11:40	Determination of Agreement and Adequacy of Breakout Session results; Wrap-up.	Ziegler
12:00	Lunch	
1:00-5:00	All attendees reconvene in Grand Exposition C; Reports from 4 Breakout Groups and Wrap up	